

ART. XI.—*On Eucalyptus polybractea*, R. T. Baker.

By R. T. BAKER, F.L.S.

(Curator, Technological Museum, Sydney).

Communicated by Prof. A. J. Ewart, D.Sc.

In a paper—"A Census of Victorian Eucalyptus"—read by myself before the Australasian Association for the Advancement of Science, in Melbourne, in January, 1913, this Eucalyptus is recorded as Victorian under the above name.

After reading my paper, a specimen was shown to me in the National Herbarium under a label bearing Mueller's writing, *E. fruticetorum*. This has caused me to go once more into the nomenclature of the two species, for I had already gone over the ground before describing the species in 1900.<sup>1</sup>

The name *E. polybractea* was bestowed by myself in 1900.

Since this Eucalyptus was described under the above name it has had various positions given it by other systematic workers on the Eucalyptus.

In 1903, Trans. Roy. Soc. South Australia, Vol. xxvii., pp. 240 and 244, Mr. J. H. Maiden places it along with *E. Woollsiana*, *E. viridis*, and others, as a synonym of *E. odorata*, Behr.

In 1903, Crit. Rev. Gen. Euc., Vol. i., p. 80, the same author places it as a synonym of *E. calycogona*, Turcz., var. *celastroides*, Maiden, and further states:—"I do not think that the original description of *E. fruticetorum*, F. v. M., had been published in Australia until I transcribed it for the Proc. Linn. Soc., N.S.W., 1902.

"I am aware of the confusion that has gathered around *E. fruticetorum*, but Mr. Wilkinson's specimens, named *E. fruticetorum* by Mueller himself, although gathered many years after the original type specimens were collected, answer the description very well. Bentham (B. Fl., 111, 252) states that the West Australian specimens referred to by Mueller in Frag. ii., 57, are referred to *E. loxophleba*, Benth., (*E. foecunda*, Schauer). They are also stated to be the *E. santalifolia*, of Miquel (op. cit. and Mueller in Trans. Vict., Inst., i., 35).

<sup>1</sup> Proc. Linn Soc. N.S.W., vol. xxv., 1900, p. 692.

*E. fruticetorum*, F. v. M., is glaucous, and is so very close to *E. celastroides*, Turcz., that I think its proper place is under *E. calycogona*, Turcz., var. *celastroides*, Maiden.

The *E. gracilis*, F. v. M., figured by Mueller in the Eucalyptographia, is not typical *E. calycogona*, but in part a slightly angled form nearest to *E. fruticetorum*."

Again (loc. cit.), Part iv., issued 1904, he states:—"This is (as regards the Western Australian specimens) identical with *E. loxophleba*, Benth., (B. Fl., iii., 252). I have shown (Part iii., p. 80 of this work) that *E. fruticetorum* is a synonym of *E. calycogona*, Turcz."

In 1904 the same author, Proc. Linn. Soc. N.S.W., p. 761, under *E. odorata*, Behr. gives: "*E. cajuputea*, F. v. M., syn. *E. polybractea*, R.T.B."

Ibid. p. 763.—"Indeed, both it (*E. acacioides*, A. Cunn.) and *E. cajuputea* (*E. polybractea*) are closely related, and both have close affinity to *E. odorata*."

Obid., p. 765.—Under *E. Woollisiana*, R.H.B., states:—"Of the identity of *E. cajuputea* and *E. polybractea*, I have little or no doubt."

Ibid., p. 765.—"For example, Dombey Bay, S.A., specimens show the very great difficulty, perhaps the impossibility, of separating *E. cajuputea* from the Green Mallee (*E. viridis*) and from the Blue Mallee (*E. polybractea*)."

In 1910, by the same author, in his "Critical Revision of the Genus Eucalyptus," vol. ii., p. 40-41, it is placed as a synonym of *E. fruticetorum*, F. v. M., the article finishing up with these words:—"The type specimen (of *E. fruticetorum*) seems to have been lost. I made a personal search in the Melbourne Herbarium for it, with the kind help of Prof. Ewart, and no trace of it can be found at Kew, so Colonel Prain is good enough to tell me. There is no good reason to doubt the correctness of Mueller's determination of this character specimen of his own species."

In the same work, vol. i., p. 79, Mueller's MS. description of *E. fruticetorum* is given, but this is too meagre upon which to place any systematic work.

Now, Bentham, Flora Australiensis iii., p. 252, places this species (*E. fruticetorum*) under *E. loxophleba*, Benth., which Maiden, loc. cit., vol. i., p. 112, places under *E. foecunda*, Sch., and later, p. 119, remarks—" *E. fruticetorum*, F. v. M., Frag. ii., p. 57. This (as regards the Western Australian specimen) is identical with *E. loxophleba*, Benth. I have shown (Part iii., p. 80, of

this work) that *E. fruticetorum* is a synonym of *E. calycogona*, Turcz.”

In view of all this revision and counter-revision of nomenclature, concerning this particular Eucalyptus—for first, it was synonymised under *E. odorata* (loc. cit. supra.), then *acacioides* (loc. cit.), then *Woolfsiana* (loc. cit.), then *cajuputea* (loc. cit.), next *viridis* (loc. cit.), then *calycogona* (loc. cit.), and, lastly, *fruticetorum* (loc. cit.), it is only natural that one should take a still greater interest in their own species, and this last determination has moved me to go over the ground again.

I might also add that I visited the Melbourne Herbarium several times and examined the specimens there before describing any of my species, and also failed to find a specimen that could be identical with *E. polybractea*. In view, however, of the last that has come to light, I have again gone over Mueller's description of *E. fruticetorum*, Frag. ii., p. 57, and have also again considered all the features in juxtaposition with my own original description of *E. polybractea*.

It would go into too much space to particularise each difference, but there are two that stand out very conspicuously, namely:—

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| <p><i>E. fruticetorum</i>, F. v. M.<br/>Frag. 11, 57.</p>   | <p>- <i>E. polybractea</i>, R. T. B., Proc.<br/>Lin. Soc. N.S.W., 1900, p. 692.</p>  |
| <p>(1). Leaves alternate, moderately petiolate, narrow-falcate or oblong lanceolate; papery or leathery penniveined; shining, marginal vein close to the edge. Leaves 2-4" long, 4-8" wide (these are impossible figures for leaves), tapering into a point, often unciniate.</p> | <p>- "leaves alternate," "lanceolate erect," "rarely falcate," oblanceolate;" "coriaceous; penni-veined;" "not shining;" "marginal vein removed from the edge;" "mid-rib on the underside raised, giving the leaf the appearance of an olea leaf," 3-4" long, under 6 lines wide, unciniate.</p> |
| <p>(2). Anthers subovate.<br/>Anthers varying from ovate to globose, square and cuneate, more or less bent on itself, dehiscent longitudinally the whole length on both sides.</p>  | <p>- Ovate or globular.<br/>Anthers globose; dehiscing by terminal pores.</p>  |

When Baron Von Mueller was describing his *E. fruticetorum*, he could not possibly have had specimens of *E. polybractea* to have so described these two organs, especially the latter, for all his delineations and description of anthers in the Eucalyptographia are pretty accurate. These two differences alone are sufficient to prove that these two species fall into different groups of Eucalyptus.

One effect of this confounding of nomenclature is that in New South Wales, the oil obtainable from *E. polybractea* being of a high-class character, is in demand on the European and American markets, and when exported from New South Wales is sold under this name, that being the one to which the chemistry is attached in the work on "Eucalypts and Their Essential Oils," published in 1902, and quoted by London buyers.

The same species is now being worked in Victoria in the Inglewood and Bendigo Districts, but the name *E. cajuputea* is attached to the product by at least one manufacturer, a name which belongs really to the South Australian species, *E. odorata*. The Victorian product thus suffers in consequence with those people who know the oil of *E. polybractea* intimately.

Apart then from the systematic side, which, of course, must predominate, commerce would certainly be better served if the original name—*E. polybractea*—is retained for this Mallee, the claims of any other name for the species as shown above being untenable. The name *E. fruticetorum* refers to another species according to Mueller's description (supra). The "Silver leaf" Eucalyptus of Bendigo and Inglewood, Victoria, and the "Blue Mallee" of Wyalong district, New South Wales, are the same species, and its name is *E. polybractea*.

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